

1 **CLAIMS**

2 What is claimed is:

3 1. A reinforcement device for anchoring and securing a
4 sectional upward opening aperture cover to a building
5 comprising:

6 an upper securing means for automatically securing an
7 upper section of said aperture cover to said building;

8 a lower securing means for automatically securing a
9 lower section of said aperture cover to said building;

10 whereby said upper securing means and said lower
11 securing means are adapted to passively maintain said
12 aperture cover in a secured orientation with respect to said
13 building.

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15 2. The reinforcement device according to Claim 1,
16 wherein:

17 said upper securement means includes at least one upper
18 anchoring assembly extending from said upper section of said
19 aperture cover, said at least one upper anchoring assembly
20 constructed and arranged to cooperate with an aperture header
21 of said building; and

22 said lower securement means includes at least one lower
23 anchoring assembly attached to said lower section of said
24 aperture cover, said at least one lower anchoring assembly

1 constructed and arranged to cooperate with a floor of said
2 building.

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4 3. The reinforcement device according to claim 2,
5 wherein said at least one upper anchoring assembly comprises:

6 a wire rope loop assembly, said wire rope loop assembly
7 being constructed and arranged to cooperate with a metal
8 hook, said wire rope loop assembly being securely attached to
9 said upper section of said aperture cover;

10 a metal hook, said metal hook being constructed and
11 arranged to receive said wire rope loop, said metal hook
12 being securely attached to said aperture header;

13 whereby said wire rope loop assembly automatically
14 engages said metal hook when said aperture cover is lowered
15 and said loop assembly automatically disengages said metal
16 hook when said aperture cover is raised.

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18 4. The reinforcement device according to claim 3,
19 wherein:

20 said wire rope loop assembly includes a bracket assembly
21 having a first end and a second end, said first end adapted
22 for attachment to said upper section of said aperture cover
23 and said second end adapted for attachment of a wire rope
24 loop member.

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2 5. The reinforcement device according to claim 4,

3 wherein:

4 said bracket assembly includes two L-shaped elements,

5 said L-shaped elements each having one leg adjustably

6 attached to the other to allow vertical adjustment of said

7 bracket assembly with respect to the substantially parallel

8 first and second ends, said first end adapted for attachment

9 to said upper section of said aperture cover and said second

10 end adapted for attachment of said loop member.

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12 6. The reinforcement device according to claim 3,

13 wherein:

14 said wire rope loop member constructed from a length of

15 wire rope having a first end and a second end, said first and

16 second ends constructed and arranged for attachment to said

17 second end of said bracket assembly so that said wire rope

18 forms said wire rope loop, said wire rope loop defining an

19 aperture for receiving said metal hook.

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21 7. The reinforcement device according to Claim 2,

22 wherein said at least one lower anchoring assembly comprises:

23 an engagement pin, said engagement pin attached to and

24 extending from said lower section of said aperture cover,

1 an anchor plate, said anchor plate attached to said
2 floor of said building, said anchor plate having a pin
3 aperture for receiving said engagement pin;

4 whereby said engagement pin engages said anchor plate
5 when said aperture cover is lowered and said engagement pin
6 disengages said anchor plate when said aperture cover is
7 raised.

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9 8. The reinforcement device according to Claim 7,
10 wherein:

11 said engagement pin includes at least one bracing groove
12 disposed therein, said at least one bracing groove being
13 adapted to engage an edge of said pin aperture disposed
14 within said anchor plate when said engagement pin shifts
15 laterally;

16 whereby said bracing groove cooperates with said edges
17 of said anchor plate as a tongue and groove arrangement to
18 prevent vertical motion of said engagement pin when said
19 aperture cover is subjected to a wind load.

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21 9. The reinforcement device according to Claim 7,
22 wherein:

23 said engagement pin is spring biased in an extended
24 position.

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2 10. A reinforcement device for anchoring and securing a
3 sectional upward opening aperture cover to a building
4 comprising:
5 an upper securing means, said upper securing means
6 including; at least one upper anchoring assembly, said upper
7 anchoring assembly including;
8 (i.) a wire rope loop assembly; said wire rope loop
9 assembly including;
10 (a.) a bracket assembly, said bracket assembly
11 including two L-shaped elements, said L-shaped elements each
12 having one leg adjustably attached to the other to allow
13 vertical adjustment of said bracket assembly with respect to
14 the substantially parallel first and second ends, said first
15 end adapted for attachment to said upper section of said
16 aperture cover and said second end adapted for attachment of
17 a wire rope loop member;
18 (b.) a wire rope loop member, said wire rope
19 loop member constructed from a length of wire rope having a
20 first end and a second end, said first and second ends
21 constructed and arranged for attachment to said second end of
22 said bracket assembly so that said wire rope forms said wire
23 rope loop, said wire rope loop defining an aperture for
24 receiving said metal hook;

1 (ii.) a metal hook; said metal hook being
2 constructed and arranged to automatically receive said wire
3 rope loop, said metal hook being securely attached to said
4 aperture header;

5 a lower securing means, said lower securing means
6 including; at least one lower anchoring assembly, said lower
7 anchoring assembly including;

8 (i.) an anchor plate, said anchor plate attached to
9 said floor of said building, said anchor plate having a pin
10 aperture for receiving said engagement pin;

11 (ii.) an engagement pin; said engagement pin
12 attached to and extending from said lower section of said
13 aperture cover, said engagement pin having at least one
14 bracing groove disposed therein, said at least one bracing
15 groove being adapted to engage an edge of said pin aperture
16 disposed within said anchor plate when said engagement pin
17 shifts laterally;

18 whereby said upper securing means and said lower
19 securing means are adapted to passively maintain said
20 aperture cover in a secured orientation with respect to said
21 building.

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